CORNING
Discovering Beyond Imagination

C1250 PXO

Typical Applications
Base Stations
Test Equipment
Telecom & Wireless Infrastructure
Digital Switching

Features
5X7 Surface Mount Package
Reflow Process Compatible Optional
ACMOS, TTL and LVPECL

Previous Corning Model Numbers
MC029, MC032, and MC033

Frequency range
1.0 to 800.0 MHz (ACMOS/TTL available up to 125 MHz. LVPECL frequencies above 220 MHz are achieved through use of PLL multiplier)

Standard frequencies
19.44, 32.768, 44.736, 51.84, 77.76, 155.52, 622.08 MHz

Frequency stabilities[1]

Parameter	Min	Typ	Max.	Units	Operating temp range	Ordering Code[5]
vs. operating temperature range (Referenced to +25°C)	-100		+100	ppm	0 … +70°C	C104
	-50		+50	ppm	0 … +70°C	C505
	-25		+25	ppm	0 … +70°C	C255
	-15		+15	ppm	0 … +70°C	C155
	-100		+100	ppm	-40…+85°C	F104
	-50		+50	ppm	-40 … +85°C	F505
	-25		+25	ppm	-40 … +85°C	F255
	-50		+50	ppm	-55…+125°C	H505
	-100		+100	ppm	-55…+125°C	H104
Overall tolerance (vs. initial accuracy, op. temp. range, vs load, vs supply, vs 1st year aging)[7]	-100		+100	ppm	-0…+70°C	C104
	-50		+50	Ppm	0…+70°C	C505
	-25		+25	Ppm	0…+70°C	C255
	-20		+20	ppm	0…70°C	C205
	-100		+100	ppm	-40…+85°C	F104
	-50		+50	ppm	-40 … +85°C	F505
	-25		+25	ppm	-40 … +85°C	F255
Parameter	**Min**	**Typ**	**Max.**	**Units**	**Condition**	**Ordering Code[5]**
Initial tolerance	-15		+15	ppm	@ 25°C	T155
	-25		+25	ppm	@ 25°C	T255
	-50		+50	ppm	@ 25°C	T505
	-100		+100	ppm	@ 25°C	T104
Supply voltage change	-2		+2	ppm	V_S ± 5%	
vs. load change	-1		+1	ppm	Load ± 5%	
vs aging /1 Year	-3		+3	ppm		
vs. aging / year (following Years)	-1		+1	ppm		

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Supply voltage (Vs)

Parameter	Min	Typ	Max.	Units	Condition	Ordering Code[5]
Supply voltage	4.75	5	5.25	VDC		**SV050**
Current consumption			15	mA	ACMOS/TTL 1.0 to 23.9 MHZ	
			20	mA	ACMOS/TTL 24 to 49.9 MHz	
			40	mA	ACMOS/TTL 50 to 80.0 MHz	
Supply voltage	3.135	3.3	3.465	VDC		**SV033**
Current consumption			6	mA	ACMOS 1.0 to 14.90 MHZ	
			8	mA	ACMOS 15.0 TO 39.9 MHz	
			12	mA	ACMOS 40.0 TO 59.9 MHz	
			16	mA	ACMOS 60.0 TO 79.9 MHz	
			40	mA	ACMOS 80.0 to 125.0 MHz	
			75	mA	LVPECL No load <200 MHz	
			100	mA	LVPECL No load ≥ 200MHz	

RF output

Parameter	Min	Typ	Max.	Units	Condition	Ordering Code[5]
Signal	**ACMOS**					**RFA**
Load		15	50	pF		
Signal Level (Vol)			0.5	VDC	Vs= 5.0V and 15pF load	
			0.3	VDC	Vs=3.3V and 15pF load	
Signal Level (Voh)	4.5			VDC	Vs= 5.0V and 15pF load	
	3.0			VDC	Vs=3.3V and 15pF load	
Rise and fall times for ACMOS (measured 10% to 90%)			10	ns	1.0 to 23.9 MHz	
			6	ns	24.0 to 79.9 MHz	
			3	ns	80.0 to 125.0MHz	
Duty cycle	45		55	%	@ 50% Vs< 15 MHz	
	40		60	%	@ 50% Vs ≥ 15 MHz	
Signal	**TTL**					**RFT**
Load			10			
Signal Level (Vol)			0.5	VDC	Vs= 5.0V and 15pF load	
Signal Level (Voh)	4.5			VDC	Vs= 5.0V and 15pF load	
Rise and fall times for TTL (measured 0.8V to 2.0V)			5	ns	1.0 to 23.9 MHz	
			3	ns	24 to 125 MHz	
Duty Cycle	45		55	%	@ 1.4V < 15 MHz	
	40		60	%	@ 1.4V ≥ 15 MHz	
Signal	**LVPECL**					**RFP**
Load			50	Ω	Into Vs-2V or Thevenin Equivalent	
Signal Level (Vol)			Vs -1.62	VDC		
Signal Level (Voh)	Vs- 1.025			VDC		
Rise and fall times (measured @ 20% to 80%)			1000	ps	<100 MHz	
			600	ps	≥ 100 MHz	
Duty cycle LVPECL	45		55	%	@ 50% Vdd	
Jitter (rms)			5	ps	BW = 10Hz to 20 MHz	
			1	ps	BW = 12 kHz to 20 MHz	
Period Jitter (pk-pk)			40	ps	10,000 Samples - Rising edge	

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Additional parameters

Parameter	Min	Typ	Max.	Units	Condition
Output Enable[6]	Logic "0" input = Outputs disabled (Tri-state) Logic "1" or floating input = Outputs enabled)				ACMOS/TTL Output
	Logic "0" or floating input = Outputs enabled Logic "1" input = Outputs disabled (Tri-state)				LVPECL Output
Weight			<2	g	
Processing & Packing	Handling & processing note				

Absolute Maximum Ratings

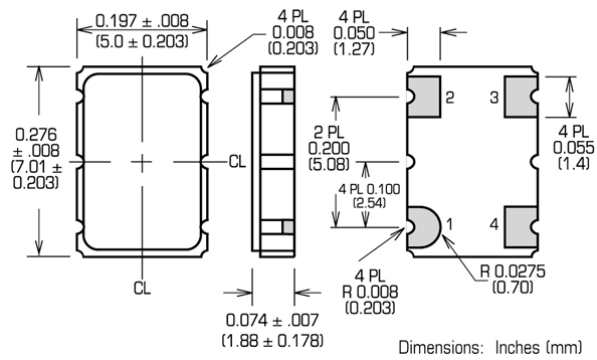
Parameter	Min	Typ	Max.	Units	Condition
Supply voltage (Vs)			7.0	V	Vs=5.0VDC
			7.0	V	Vs=3.3VDC
Operable temperature range	-55		+85	°C	
Storage temperature range	-55		+125	°C	

Enclosures

Type A - ACMOS/TTL

Package Codes:

Code	Height "H"	Pin Length "L"
A1 E1 = Enable/Disable pin 1 X = N/C pin 1	1.88±0.178	N/A

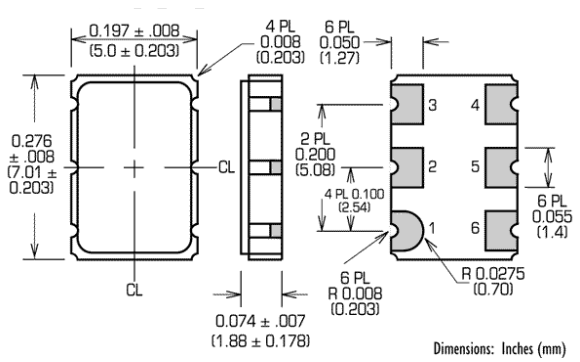


Pin Connections

1 Enable/Disable or N/C
2 Ground (Case)
3 RF Output
4 Supply Voltage

Type B - LVPECL

Code	Height "H"	Pin Length "L"
B1 E1 = Enable/Disable pin 1 X = N/C pin 1	1.88±0.178	N/A



Pin Connections

1 Enable/Disable or N/C
2 N/C
3 Ground (Case)
4 RF Output
5 Complementary Output
6 Supply Voltage

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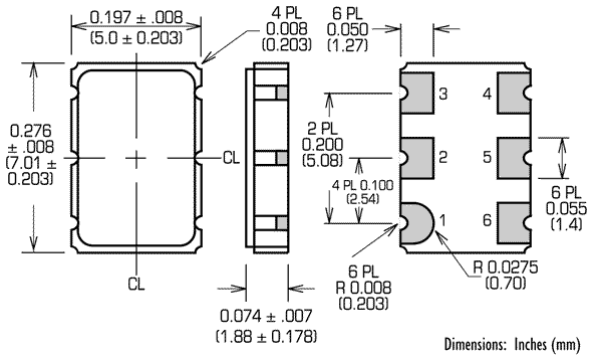
Type C - LVPECL

Code	Height "H"	Pin Length "L"
C1 E2 = Enable/Disable pin 2 X = N/C pin 2	1.88±0.178	N/A



Pin Connections

1 N/C
2 Enable/Disable or N/C
3 Ground (Case)
4 RF Output
5 Complementary Output
6 Supply Voltage

How to Order this Product:

Step 1 Use this worksheet to forward the following information to your factory representative.

Model	Stability Code	Initial Accuracy Code	Supply Voltage Code	RF Output Code	Package Code	Enable/Disable
C1250						
Example: C1250	C505	*T505*	*SV050*	*RFA*	*A1*	*E1*

Step 2 The factory representative will then respond a Corning Model Number in the following Configuration:

Model	Package Code	Dash	Dash Number
C1250	[Customer Specified Package Code]	-	[Factory Generated 4 digit number]

Typical P/N C1250A1-001

Notes:

1 Contact factory for improved stabilities or additional product options. Not all options and codes are available at all frequencies.
2 Unless otherwise stated all values are valid after warm-up time and refer to typical conditions for supply voltage, frequency control voltage, load, temperature (25°C)
3 Phase noise degrades increasing output frequency.
4 Subject to technical modification.
5 Contact factory for availability.
6 Contact facory for options.
7 Overall stabilities do not require an initial accuracy order code.

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